

IN THE CLAIMS:

1 1. (Original) A light emission apparatus comprising:
2 a substrate that dissipates heat;
3 an insulation film that covers a main surface of the substrate;
4 a metal wiring pattern provided on the insulation film;
5 a light emission chip that is mounted above the insulation film, is connected to the
6 metal wiring pattern, and emits light having a peak wavelength in a range of 250 nm to 480
7 nm inclusive; and
8 a light reflective layer that is made of particles of metal oxide and is provided at
9 any place that has the insulation film thereunder, but not light emitting surface of the light
10 emission chip thereunder.

1 2. (Original) The light emission apparatus of Claim 1, wherein
2 the particles of metal oxide have an average particle diameter of 0.50 μ m or below.

1 3. (Amended) The light emission apparatus of ~~any one of Claim 1 and Claim~~
2 2, wherein
3 the metal oxide is selected from the group consisting of Al₂O₃ and ZnO.

1 4. (Original) The light emission apparatus of Claim 1, wherein
2 the light emission chip is made of either a resonant light emitting diode or a
3 vertical-cavity surface-emitting laser element.

1 5. (Original) The light emission apparatus of Claim 1, wherein
2 a thread hole and a groove are provided with respect to the substrate in a position where
3 the light emission chip is provided in a plan view, the groove being to absorb distortion which
4 occurs when the substrate expands due to heat.

1 6. (Original) The light emission apparatus of Claim 1, further comprising a covering
2 member that covers the light emission chip and is made from: a glass substrate; and a phosphor
3 layer that is provided on a main surface of the glass substrate facing the light emission chip and
4 that is excited by light emitted from the light emission chip thereby emitting excitation light.

1 7. (Original) The light emission apparatus of Claim 6, wherein
2 the light emission chip is made to abut against the phosphor layer.

1 8. (Original) The light emission apparatus of Claim 6, wherein
2 the phosphor layer is made of either: a composition that emits white excitation light by
3 being excited by the light emitted from the light emission chip; or a composition that emits such
4 excitation light that, when synthesized with the light from the light emitting chip, yields white
5 light.

1 9. (Original) The light emission apparatus of Claim 6, wherein
2 the glass substrate of the covering member is fitted into a metal frame that is fixed to the
3 substrate by means of welding.

1 10. (New) The light emission apparatus of Claim 2, wherein
2 the metal oxide is selected from the group consisting of Al_2O_3 and ZnO .

1 11. (New) A light emission apparatus comprising:
2 a substrate,
3 an insulation film that covers a main surface of the substrate;
4 a wiring pattern provided on the insulation film;

5 an array of light emission chips that are mounted above the insulation film, and
6 connected to the wiring pattern, to emit light having a wavelength in the ultra violet range;
7 a phosphor layer operatively positioned relative to the light emission chips and response
8 to the ultra-violet wavelength range to emit a white light; and
9 a light reflective layer that includes particles of metal oxide above the insulation film and
10 surrounding the light emitting surfaces of the light emission chips.

1 12. (New) The light emission apparatus of Claim 11, wherein
2 the light emission chips are made of one of a resonant light emitting diode and a vertical-
3 cavity surface-emitting laser element.